ABSTRACT OF THE DISCLOSURE

A defect detection method and system which can provide a precise determination of whether an object is acceptable without being affected by the position of placement and the rotational orientation of the object. An arc circumscribing the tip of modules of a sprocket is determined. Then, each overlapping region is extracted which is formed by an overlapping portion between an inner portion of a region defined by the arc and the cut-away portion of the sprocket. The area of each overlapping region is determined and compared with each other. In accordance with a determination of whether each area difference falls within the predetermined range of criteria ε, it is determined whether a chipped portion exists on the tip of module. If there is a chipped portion on the tip of module, two or more overlapping regions are integrated with each other to form a larger overlapping region, thereby making it possible to determine easily and positively the presence of a chipped portion on the tip of module.